The Environmental Cleanup of Marine Corps Air Station Tustin

January 1996 Tustin, California No. 5

Fast-Track Studies Focus on Reducing Cost and Schedule at MCAS Tustin

With the cleanup of MCAS Tustin's fuel farm area already under way, the Marine Corps/Navy has turned its attention to a number of other sites that were not a part of the base's initial environmental investigations. These additional locations were studied as part of the ongoing effort to prepare base property for future reuse.

To help in this undertaking, the cleanup team recently completed a basewide Remedial Investigation to determine the extent and level of potential chemical contamination at MCAS Tustin, and to discover what impact—if any—the base's operation has had on the environment over the years.

Investigation efforts began in July 1995 with the sampling and analysis of groundwater and soils to determine the presence of chemicals that could pose a risk to human health or the environment. Investigation results will be used by the Marine Corps/Navy to develop the best strategies to achieve efficient and effective containment and cleanup of potentially contaminated areas.

"Our priorities are to protect human health and the environment and to return MCAS Tustin to public use as quickly and efficiently as possible. This investigation represents an essential step in reaching those goals," says Desire Chandler, Base Realignment and Closure (BRAC) Environmental Coordinator. "The base cannot be transferred to public use until this activity is completed and effective environmental cleanup is under way."

To accomplish this, the Marine Corps/Navy and regulatory agencies developed a time-saving, single-phase field investigation, as opposed to the more traditional multi-phase studies. Because of this resourceful streamlining, the investigation process was speeded up while quality data were delivered more quickly.

The MCAS Tustin investigation, for example, used a drilling technique that allowed for rapid collection of soil and groundwater samples and geological information at lower costs than conventional methods. This process, in combination with the use of an on-site screening laboratory to provide quick (often 24-hour) analysis of samples, enabled a three-dimensional picture of the affected soil to be generated. These pictures indicate the extent of potential chemical contamination of soil and groundwater without impeding other environmental field activities.

At the same time, field investigators made use of an innovative system known as HydroPunch™ to collect groundwater samples at the base. The system is designed to properly collect representative groundwater samples for analysis without the need to install more expensive monitoring wells. The use of the HydroPunch™ allowed the location and extent of potential groundwater contamination to be determined quickly and, in combination with analysis of samples by the on-site laboratory, will optimize the placement of permanent monitoring wells. Once the extent and types of

CONTINUED ON PAGE 2

This is the fifth fact sheet in a series of communications issued during the environmental investigation and cleanup process at Marine Corps Air Station (MCAS) Tustin. Future fact sheets will provide further updates and will inform you of opportunities for public involvement. Watch for additional progress reports that will detail these environmental activities and explain their importance in preparing MCAS Tustin for reuse and transfer to the public.

Fast Track Studies
FROM PAGE 1

chemicals in the soil and groundwater are confirmed, different cleanup alternatives will be evaluated by the Marine Corps/Navy and considered by regulatory agencies and the general public.

Together, the use of drilling, on-site laboratory screening, and the HydroPunch™ accelerated the identification of areas that can be cleaned up quickly, and provided information that is being used to propose sound and thorough cleanup technologies. In addition, some locations characterized through this investigation may then be placed on an accelerated cleanup schedule to make them available for transfer sooner than currently scheduled.

Seven Areas Undergo Innovative Evaluation

The Remedial Investigation at MCAS Tustin specifically addressed seven Installation Restoration Program (IRP) sites. Sampling and analysis activities previously mentioned were performed at each of the following locations where chemicals of potential concern were stored or released (see Figure 1):

- **Moffett Trenches and Crash Crew Pits (IRP-1).** Located in the northeastern portion of the base, this is an area where crash crews practiced putting out fires. In addition to the flammable liquids used by the crash crews, the site is suspected of containing a mixture of industrial wastes that includes paints, oils, fuels, and solvents.

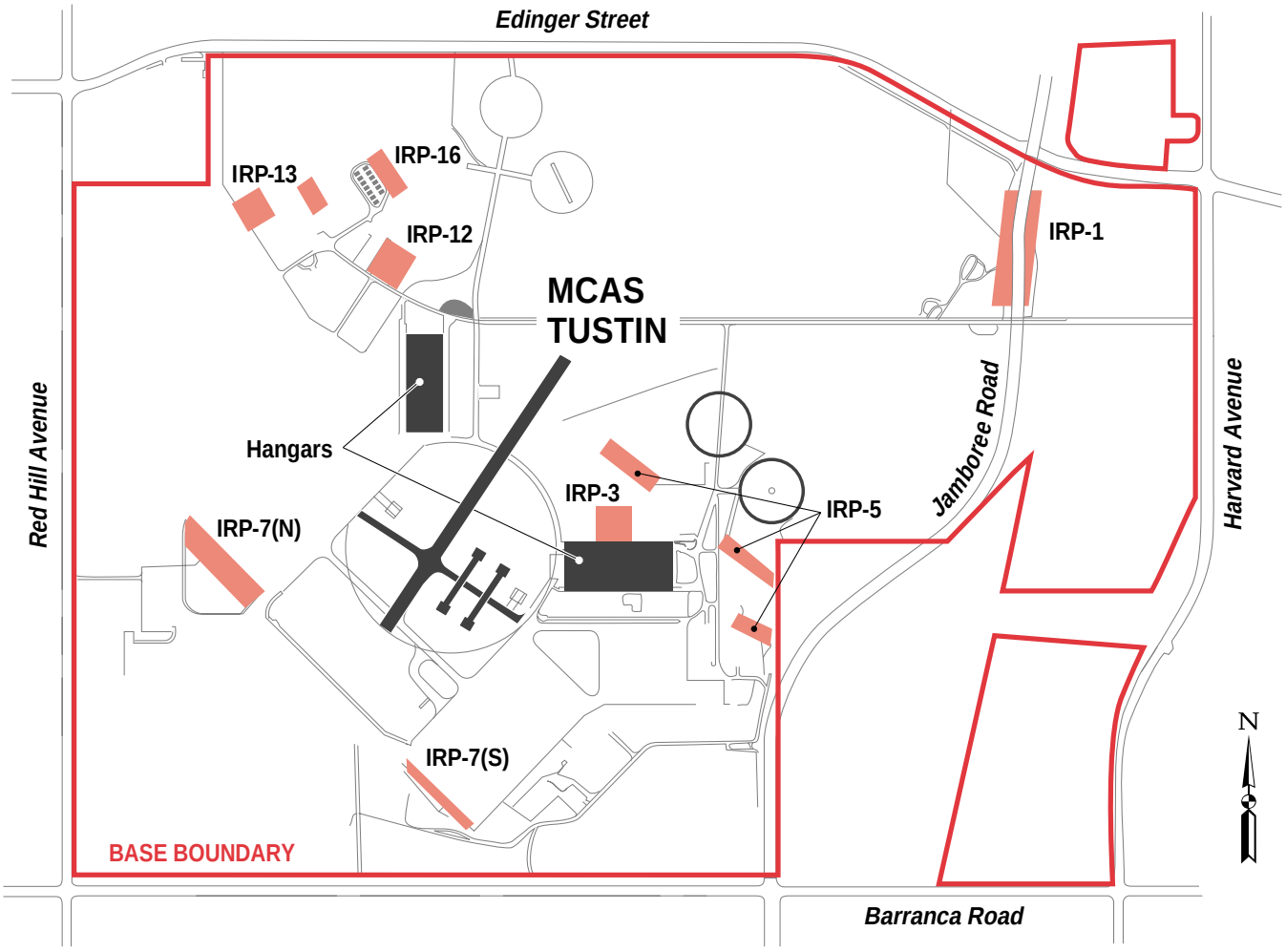


Figure 1. The seven Installation Restoration Program (IRP) sites where sampling activities were performed.

■ **Paint Stripper Disposal Area (IRP-3).** Includes buildings that have been used for chemical storage and painting operations since 1967. Shallow soil samples indicate the presence of heavy metals, such as lead and cadmium, as well as oil, chlorinated solvents used as degreasers and dry cleaning fluids (principally trichloroethylene), and polynuclear aromatic hydrocarbons, which are organic compounds generated by the burning of fossil fuels and by the combustion of petroleum products.

■ **Drainage Ditch Area (IRP-5).** Comprises three open drainage ditches that are part of a system that collects surface water runoff from most of the northwestern portion of the base. Runoff and direct disposal may have included waste oils, chlorinated solvents, hydraulic fluids, diesel fuel, gasoline, and battery acids.

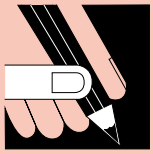
■ **Apron Areas (IRP-7).** Consists of two active helicopter rapid refueling stations, each capable of fueling up to six helicopters at a time. Between 1969 and 1982, several fuel-related releases and spills occurred on the pads, with the residue being washed off onto the surrounding soil.

■ **Drum Storage Area #2 (IRP-12).** A site used to store drums from the mid-1960s to 1975. The drums were reported to have contained assorted unidentified solvents, crankcase oil, and hydraulic fluid.

■ **Drum Storage Area #3 (IRP-13).** Contains two past storage sites. Hydrocarbon liquids, such as diesel and jet fuel, were reported to have been released onto the soil in one area. The second site includes a stained area of soil where drums containing a variety of chemicals were stored.

■ **Tank Farm/Old Railroad Area (IRP-16).** Consists of an open field through which a railroad line once ran. Historical data indicate that the soil may contain low levels of aromatic hydrocarbons, such as benzene and toluene, as well as chlorinated solvents.

Feasibility Studies and Public Involvement Opportunities Follow Investigation



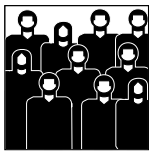
The investigation of these seven sites was completed in January 1996 and a comprehensive summary of the results will be issued as a Remedial Investigation Report in mid-1996. The report will be available at the base's local information repository upon its publication (see page 4 for repository location).

A basewide feasibility study is now being conducted to evaluate the methods most appropriate and cost-effective for cleaning up, or remediating, any chemicals in the groundwater or soil that could pose a risk to human health or the environment. State and federal environmental regulators and the general public will have an opportunity to review and provide comments on the proposed cleanup plans and the Feasibility Study.

MCAS Tustin will hold a public comment period during which community members will be encouraged to submit written comments on the proposed plans. The dates of the review and comment period will be announced in local newspapers and another fact sheet will be issued describing the cleanup alternatives, including the Marine Corps/Navy's preferred options. Once the Marine Corps/Navy has considered these comments, a Record of Decision will be issued announcing the selected alternative and cleanup plans will be implemented.

Interested members of the public may receive additional fact sheets, notices of document availability, and public comment opportunities by completing and returning the mailing coupon provided on the last page.

Multi-Agency Team Organized to Manage Base Cleanup Efforts



With fast-track cleanup activities already under way and the decision to close MCAS Tustin by July 1999, the Department of Defense formed a multi-agency team in 1993 to coordinate environmental cleanup programs that will both protect human health and the environment and bring about an orderly and efficient closure and reuse of the base.

Formally known as the Base Realignment and Closure (BRAC) Cleanup Team, the group is commonly referred to as the BCT. It is designed to serve as the primary forum for assessing progress, obtaining consensus on problem issues, and making decisions regarding environmental activities at MCAS Tustin.

The BCT consists of three main representatives: the Marine Corps/Navy, the California Environmental Protection Agency's Department of Toxic Substances Control, and the U.S. Environmental Protection Agency.

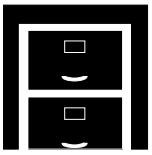
Working together, the cleanup team is responsible for:

- Expediting, reviewing, and approving all technical documents associated with the cleanup process.
- Resolving technical, operational, and administrative issues, including questions that revolve around specific sites, methodologies, and technologies.
- Reaching consensus on procedural issues, such as improved contracting approaches, schedule modifications, and environmental activities, that could have an impact on disposal and reuse.

In addition, the BCT and a supporting project team have developed the BRAC Cleanup Plan (BCP), a document that summarizes current hazardous waste and resource management activities and outlines how the base is complying with current environmental regulations.

"Think of the BCP as a road map that will guide our team through the entire cleanup process," explains BRAC Environmental Coordinator Desire Chandler.

MCAS Tustin's entire environmental restoration project team roster includes representatives from the base's planning, engineering, environmental, and base closure offices. Also on board are toxicologists, technical reviewers, reuse specialists, and representatives from the City of Tustin Redevelopment Authority.



Information Repository

Reports, documents, and fact sheets about the environmental restoration efforts at MCAS Tustin are available for public review at the information repository.

University of California, Irvine
Main Library
Government Publications Department
Contact: Yvonne Wilson
(714) 824-7362
or 824-6836 for library hours

Current Edition of BRAC Cleanup Plan Now Available

The 1995 edition of the Base Realignment and Closure (BRAC) Cleanup Plan, available for public review at the information repository listed on Page 4, outlines the primary goals of the Installation Restoration Program underway at MCAS Tustin. These include:

- Protecting human health and the environment.
- Reaching cleanup goals in order to facilitate intended future land reuse.
- Identifying land areas suitable for transfer by deed.
- Complying with applicable federal, state, and local statutes and regulations.

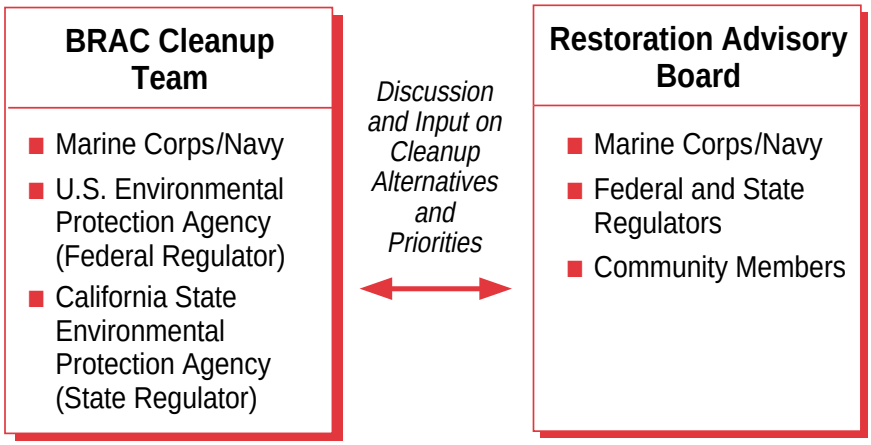


Figure 2. The BRAC Cleanup Team's relationship to the community-based Restoration Advisory Board at MCAS Tustin.

Past and current cleanup activities at MCAS Tustin have been incorporated into the strategies outlined in the BRAC Cleanup Plan, including information from groundwater and soil investigations. Annual updates to the plan are required and include summaries of continuing environmental investigations and outlines of basewide cleanup schedules. Results from the 1995 field studies, for example, have been incorporated into the 1996 edition.

BRAC Cleanup Team representatives stress that environmental restoration efforts at the base take top priority on the road to base closure and reuse. As part of this effort, community members are encouraged to become involved in the environmental decision-making process—either by signing up to be on the environmental project mailing list or by participating in the local community-based Restoration Advisory Board (see Figure 2). Such public participation, team members say, ensures that community concerns will be considered throughout the environmental cleanup process.

For Additional Information

The Marine Corps/Navy encourages community involvement in the decision-making process for the environmental restoration program at MCAS Tustin. If you have any questions or concerns about environmental activities at MCAS Tustin, please feel free to contact any of the following project representatives:

Ms. Charly Wiemert
Community Point-of-Contact, MCAS Tustin
(714) 726-2840

Captain Brad Bartelt
BRAC Public Affairs Officer
Marine Corps Air Bases, Western Area
(714) 726-3853

Ms. Marsha Mingay
Public Participation Specialist
California State Environmental Protection Agency
(310) 590-4881

MAILING COUPON

❑ I would like to be added to the MCAS Tustin environmental restoration program mailing list.

❑ I would like to receive information on Restoration Advisory Board membership.

Name _____

Street _____

City _____ State _____ Zip Code _____

Affiliation *(optional)* _____ Telephone _____

Mail to: Commanding General, Attn: Ms. Charly Wiemert, AC/S, Environmental (1AU), MCAS El Toro, P.O. Box 95001, Santa Ana, CA 92709-5001

Commanding General
Attn: Ms. Charly Wiemert
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